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The Genus Hagensia Forel (Formicidae)

by

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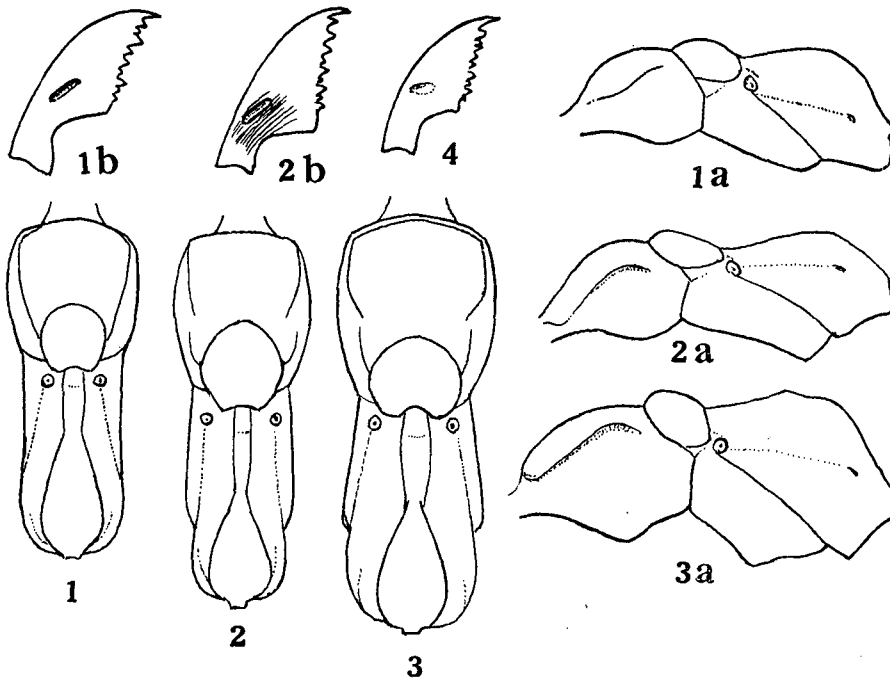
This genus was originally erected by Forel (1901) as a subgenus of *Megaponera* Mayr, and distinguished from that genus mainly by the absence of a carina on the cheeks, and by the marginate pronotum and the pointed and trenchant node of the petiole. Emery (1911) attached the subgenus to *Euponera,* but neither Emery nor Forel noticed the groove on the mandibles, and since in addition to these characters the claws are toothed in the ♂ *and* ☿, I raised *Hagensia* to generic rank (1926).

In my monograph of the South Afriacn Formicidæ (1915) the description of *H. peringueyi* Em. was based on a specimen from Saldanha Bay presented to me by Dr. Peringuey. Recently I had the opportunity to collect some 17 specimens in the type locality, Nordhoek in the Cape Peninsula. In all these specimens the form and position of the fovea on the mandibles were the same as in *H. havilandi* Forel, and not as in the specimen from Saldanha Bay. Dr. Hesse, of the South African Museum, kindly lent me all five specimens in their collection placed under *peringueyi.* One of these is evidently the type described by Emery, bearing a label in Dr. Peringuey's writing, " unique, à renvoyer ". Three others, ☿ ☿, are from Saldanha Bay, and the fifth is an apterous ♂ from Darling, C.P. The 17 specimens from Nordhoek agree in every respect with the type, from which it follows that the specimens from Saldanha Bay constitute a distinct race. Emery in his description rightly surmises that the glabrous condition is due to abrasion or defective conservation, since the pubescence in my 17 examples is plainly apparent.

The race *saldanhæ* differs from the type of *peringueyi* (Figs. 1, 1a and 1b) as follows:

Puncturation of the head larger, clearly resolvable under a magnification of 32 diameters (45 - 50 diameters in the type). Sides of the head and pronotum less convex. The fovea on the mandibles is very shallow and transverse in position, and the inner half of the mandibles is more strongly punctured (Fig. 4). The posterior third of the epinotal dorsum is not deeply grooved, i.e. transversely concave, as in the type, since the raised lateral margins of the declivity are not continued over the dorsum. The specimens are also smaller, 9·3 to 9·5 mm. long. The very fine pubescence on the whole body is brownish as in *peringueyi* i. sp. The type of the subspecies is in the South African Museum. In the same collection there is also an apterous ♂, without any traces of wing-bases, from Darling, C.P. It is labelled *E.* (*Mesoponera*) *peringueyi,* probably by the late Mr. Lightfoot. In the absence of workers from the same locality I hesitate to confirm that determination.



Figs. 1, 1a and 1b. *Hagensia peringueyi* Em.
„ 2, 2a and 2b. „ *havilandi* Forel.
„ 3 and 3a. „ *havilandi* race *marleyi* Arn.
„ 4. „ *peringueyi* race *saldanhæ* Arn. left mandible.
Figs. 1b, 2b and 4 × 15, the other figs. × 13.5.

H. havilandi Forel (Figs. 2, 2a and 2b.)

1901. Rev. Suisse Zool. 9, 333 ☿.

This species can be distinguished from *peringueyi* not only by its larger size, but also by the matt surface of the whole body. The sculpture of the head is reticulate-punctate, resolvable under a magnification of 30 diameters, whereis in *peringueyi* the necessary magnification is from 45 to 50 diameters, and the interspaces are as wide as the punctures. The head is very nearly one-quarter longer than wide, but in *peringueyi* only one-sixth longer. The mandibles are closely striolate on the basal half and the fovea is oblique, as in *perinqueyi,* but shallower. The slope of the anterior part of the pronotal dorsum is steeper than in *peringueyi* and the lateral carinæ are more convex. The mesonotum is as long as wide, or not so wide as in *peringueyi,* in which it is about one-third wider than long.

♂. 12 mm. long. I obtained specimens of this sex with the ☿ ☿ at Umhlanga, Natal. They differ from the ♂ ♂ of *peringueyi,* var. *godfreyi* (Arnold, 1915, 68) in having a duller abdomen, denser decumbent whitish

pubescence, a shorter petiole without the small recurved teeth on each side of the base, and the slightly longer scape, which is equal to more than half the length of the third joint of the flagellum.

The habits of the two species are also very different. Whereas *peringueyi* can be seen on the slopes of Nordhoek wandering about on the ground in the brightest sunlight, *havilandi* is a crepuscular and nocturnal species. At Umhlanga Rocks, on the Natal coast, during a period of over three weeks, they were never seen moving about during the day time, even in the shade of the dense beach bush, but came out of their nests only some time after sunset. Many nests were found on the sloping banks of the road on the seaward side of the beach bush. The entrance is a small hole, about 5 mm. wide, and recognizable in some cases by the talus of excavated soil at the foot of the slope. There were at least two dozen workers in each nest, in which I was unable to find any remains of their prey.

H. havilandi, race **marleyi** Arn. (Figs. 3 and 3a.)

1926. Ann. S. Afr. Mus. 23, 203.

This race is clearly distinct from *havilandi* i. sp., but in my description the following characters were not sufficiently emphasized: The pronotum is flatter, anhd lengthwise much less convex. The mesonotum is not as long as wide as in the type of the species, but two-fifths wider than long. The mandibles are striolate all over, not only over the base.

H. havilandi race **godfreyi** Arn.

1914. Ann S. Afr. Mus. 14, 68 ♂.
1926. Ann. S. Afr. Mus. 23, 203 ☿.

The type of the ☿ from Pirie, Kingwilliamstown, may be the same as the var. *fochi* Forel (1918, 155) with which it agrees in size. However, Forel's description is so slight that identification cannot be settled without a comparison with Forel's type, which I am unable to make. On the other hand, having now seen the type of *peringueyi* Em. it is evident that the smaller specimens from Grahamstown, mentioned in my original description, should be referred to that species.

The following key will help in separating the several forms:

(2) 1. Fovea on the mandibles shallow and transverse. Puncturation of the head resolvable under a magnification of 32 diameters. Length 9.3-9.5 mm. .. .. *peringueyi saldanhæ*

(1) 2. Fovea on the mandibles oblique and deep.

(6) 3. Whole body moderately shining, puncturation of the head very fine, the interspaces as wide as the punctures, resolvable only under a magnification of 45-50 diameters. Mandibles not striolate.

(5) 4. Length, excluding the mandibles, 11 mm. .. .. *peringueyi*

(4) 5. Length, excluding the mandibles, 12 mm. .. .. .. *peringueyi* var. *godfreyi*

(3) 6. Whole body, or at least the head and thorax matt, very closely reticulate-punctate, the sculpture resolvable under a magnification of 30 diameters.

(8) 7. Mesonotum as long as wide. Mandibles striolate over the basal half. Abdomen microscopically transversely rugulose, and nitidulous. Length, excluding the mandibles, 12.5 mm. .. .. *havilandi*

(7) 8. Mesonotum two-fifths wider than long. Mandibles striolate all over. Abdomen matt, very closely reticulate (45 diameters) .. *havilandi marleyi*

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